



US005339493A

United States Patent [19][11] **Patent Number:** **5,339,493****MacIntyre**[45] **Date of Patent:** **Aug. 23, 1994**[54] **ADJUSTABLE HINGE**[76] **Inventor:** **Robert J. MacIntyre**, 1938 River Bend Ct., Mequon, Wis. 53092[21] **Appl. No.:** **969,098**[22] **Filed:** **Oct. 30, 1992**[51] **Int. Cl.⁵** **E05D 7/04**[52] **U.S. Cl.** **16/238; 16/237**[58] **Field of Search** **16/237, 238, 248**[56] **References Cited****U.S. PATENT DOCUMENTS**

730,265	6/1903	Hill .	
994,196	6/1911	Reddick .	
1,307,807	9/1912	Thurber .	
1,782,490	11/1930	Torgerson .	
2,255,529	9/1941	May .	
3,210,798	10/1965	Tice .	
3,596,307	8/1971	Kolmetsky	16/237
3,940,829	3/1976	Grunert et al.	16/DIG. 43
4,159,557	7/1979	Pittasch et al.	16/237
4,185,357	1/1980	Busse	16/DIG. 43
4,493,129	1/1985	Grass	16/238
4,785,498	11/1988	Brotschi	16/238
4,817,241	4/1989	Koch et al.	16/238
4,825,507	5/1989	Killingstad	16/241
5,058,236	10/1991	Henson	16/238

FOREIGN PATENT DOCUMENTS

189536	4/1957	Austria	16/237
1809829	9/1970	Fed. Rep. of Germany	16/235
2736393	2/1978	Fed. Rep. of Germany	16/238

2920843	12/1980	Fed. Rep. of Germany	16/237
3004313	8/1981	Fed. Rep. of Germany	16/238
2032994	5/1980	United Kingdom	16/237

Primary Examiner—Lowell A. Larson*Assistant Examiner*—Donald M. Gurley*Attorney, Agent, or Firm*—Andrus, Scealess, Starke & Sawall

[57]

ABSTRACT

An adjustable hinge for interposition between a door and a frame includes a frame leaf, a door leaf pivotably mounted to the frame leaf, and an adjustable mounting assembly mounted to the door and with which the door leaf is engaged. The mounting assembly includes a cover fixed to the door and a base mounted to the cover, with the door leaf being engaged with the base. The base is fixed against horizontal movement relative to the cover, and a horizontal adjustment screw is engaged with the base. The door leaf is mounted to the adjustment screw for movement in a front-rear direction along with the adjustment screw to adjust the horizontal position of the door relative to the door leaf, and thereby relative to the frame. The base is mounted for vertical up and down movement to the cover, and an adjustment screw is provided for controlling the vertical position of the base relative to the frame. Substantially the entire extent of the adjustable mounting assembly is received within a recess formed in the door to conceal the adjustment mechanism.

29 Claims, 2 Drawing Sheets